

Amendments to the Claims

The following listing of claims replaces all prior versions of the claims and all prior listings of the claims in the present application.

1-28. (canceled)

29. (currently amended) A tyre for a vehicle wheel, comprising:

a carcass structure;

at least one annular reinforcing structure;

a tread band; and

a pair of sidewalls;

wherein the carcass structure comprises:

at least one carcass ply;

wherein each carcass ply comprises:

a plurality of elongated elements comprising a plurality of strip-like elements having terminal parts;

wherein the elongated elements are disposed in a substantially U-shaped conformation around a cross-section profile of the tyre,

wherein each elongated element comprises:

two side portions at mutually-spaced-apart positions in an axial direction;

and

a crown portion that extends at a radially external position between the side portions;

wherein the at least one annular reinforcing structure is associated with the carcass structure at the side portions of the elongated elements,

wherein the at least one annular reinforcing structure comprises:

~~at least one bead core~~ a first bead core; and

a second bead core,

wherein the first bead core is disposed axially internal to the at least one carcass ply, and

wherein the second bead core is disposed axially external to the at least one carcass ply;

wherein a fraction of the elongated elements is turned up around the at least one bead core, the fraction being less than all of the elongated elements,

wherein the tread band is disposed radially external to the carcass structure, and

wherein the sidewalls are disposed at axially opposite positions on the carcass structure.

30. (canceled)

31. (currently amended) The tyre of ~~claim 30~~ claim 29, wherein the fraction of the elongated elements is turned up around the first bead core.

32. (currently amended) The tyre of ~~claim 30~~ claim 29, wherein the fraction of the elongated elements is turned up around the second bead core.

33. (currently amended) The tyre of ~~claim 30~~ claim 29, wherein the fraction of the elongated elements is turned up around the ~~first and second bead cores~~ core, and a remainder of the elongated elements is turned up around the first bead core.

34. (currently amended) The tyre of ~~claim 30~~ claim 29, wherein a carcass ply stretch interposed between the first and second bead cores has a cross-section profile with a length greater than or equal to 15 mm and less than or equal to 70 mm.

35. (currently amended) The tyre of ~~claim 30~~ claim 29, wherein the at least one annular reinforcing structure further comprises:

a third bead core disposed axially external to the second bead core.

36. (previously presented) The tyre of claim 29, wherein the fraction of the elongated elements is less than or equal to about 50% of an overall number of the elongated elements.

37. (currently amended) The tyre of claim 29, wherein ends of ~~at least two of~~ the turned-up elongated elements lie in different planes.

38. (previously presented) The tyre of claim 29, wherein the tyre further comprises:
at least one reinforcing edge;

wherein the at least one reinforcing edge is axially external, radially external, or axially and radially external to a respective annular reinforcing structure.

39. (canceled)

40. (currently amended) The tyre of ~~claim 39~~ claim 29, wherein the strip elements comprise at least two lengths different from each other.

41. (currently amended) The tyre of ~~claim 39~~ claim 29, wherein the strip elements comprise a same length.

42. (currently amended) A method of manufacturing a tyre for a vehicle wheel, comprising:

preparing a plurality of elongated elements comprising a plurality of strip-like elements having terminal parts, wherein during preparing the plurality of elongated elements, the strip elements are submitted to necking-down, such that a cross-sectional area of the strip elements is locally reduced;

disposing each elongated element on a toroidal support;

applying at least one bead core at a region close to side portions of the elongated elements; and

turning up ends of a fraction of the elongated elements around the at least one bead core, wherein turning up ends of the fraction of the elongated elements is preceded by disposing at least one first bead core and at least one second bead core,

wherein the at least one first bead core is disposed axially internal to the
at least one carcass ply, and

wherein the at least one second bead core is disposed axially external to
the at least one carcass ply;

wherein the tyre comprises:

- a carcass structure;
- at least one annular reinforcing structure;
- a tread band; and
- a pair of sidewalls;

wherein the carcass structure comprises:

- at least one carcass ply;

wherein the elongated elements are coated with at least one layer of elastomer material,

wherein the elongated elements are disposed in a substantially U-shaped conformation around a cross-section profile of the toroidal support,

wherein each elongated element comprises:

- two side portions at mutually-spaced-apart positions in an axial direction;

and

a crown portion that extends at a radially external position between the side portions;

wherein the at least one annular reinforcing structure comprises:

- the at least one bead core;

wherein ~~[[a]]~~ the turned up ends of the fraction of the elongated elements comprise ~~[[an]]~~ end ends at a radially more internal position than the at least one bead core, the fraction being less than all of the elongated elements.

wherein the tread band is disposed radially external to the carcass structure, and
wherein the sidewalls are disposed at axially opposite positions on the carcass structure.

43. (canceled)

44. (currently amended) The method of ~~claim 43~~ claim 42, wherein turning up the ends of the fraction of the elongated elements is carried out subsequent to disposing a layer of reinforced polymeric material axially external to the at least one second bead core.

45. (currently amended) The method of ~~claim 43~~ claim 42, wherein the ends of the fraction of the elongated elements are turned up around the at least one first bead core.

46. (currently amended) The method of ~~claim 43~~ claim 42, wherein the ends of the fraction of the elongated elements are turned up around the at least one second bead core.

47. (currently amended) The method of ~~claim 43~~ claim 42, wherein the ends of the fraction of the elongated elements are turned up around the at least one ~~first and~~ second bead ~~cores~~ core, and a remainder of the elongated elements is turned up around the at least one first bead core.

48. (currently amended) The method of ~~claim 43~~ claim 42, wherein turning up the ends of the fraction of the elongated elements is carried out in at least two steps,
wherein two of the steps are separated by disposing a filler in an axially external position to an axially external edge of the at least one second bead core, and
wherein the ends of the elongated elements turned-up during a second step lie in offset planes relative to the ends of the elongated elements turned up during a first step.

49. (currently amended) The method of ~~claim 43~~ claim 42, wherein turning up the ends of the fraction of the elongated elements is followed by disposing a third bead core at an axially external position to the at least one second bead core.

50. (previously presented) The method of claim 42, wherein during preparing the plurality of elongated elements, a continuous ribbon element is cut into strip elements,
and

wherein the elongated elements comprise the strip elements.

51. (previously presented) The method of claim 50, wherein the strip elements comprise at least two lengths different from each other.

52. (previously presented) The method of claim 50, wherein the strip elements comprise a same length.

53. (previously presented) The method of claim 50, wherein disposing each elongated element on the toroidal support is carried out by laying strip elements of different length symmetrically with each other relative to an equatorial plane of the toroidal support.

54. (previously presented) The method of claim 50, wherein disposing each elongated element on the toroidal support is carried out by laying strip elements of a same length asymmetrically relative to an equatorial plane of the toroidal support.

55. (previously presented) The method of claim 54, wherein disposing each elongated element on the toroidal support is carried out by further laying at least one strip element of shorter length symmetrically relative to the equatorial plane of the toroidal support.

56. (canceled)

57. (previously presented) The method of claim 42, wherein the at least one bead core is obtained by winding a plurality of coils of metal wire disposed in radial superposition and axial side-by-side relationship with each other.

58. (previously presented) The method of claim 42, further comprising:
disposing at least one reinforcing edge axially external, radially external, or axially and
radially external to a respective annular reinforcing structure.